



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,772	12/29/2000	Stephen S. Selkirk	00-062-DSK	8708

7590

12/12/2002

Wayne P. Bailly
Storage Technology Corporation
One Storage Task Drive
Louisville, CO 80028-4309

EXAMINER

CHEN, TE Y

ART UNIT

PAPER NUMBER

2171

DATE MAILED: 12/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,772

Applicant(s)

Selkirk et al.

Examiner

T. Chen

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 25, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 2171

DETAILED ACTION

1. Claims 1 - 11 are presented for examination.

Specification

2. The disclosure is objected to because of the following informalities:

The provisional patent application or serial numbers of various related applications at page 1 should be filled with correct numbers.

Appropriate correction is required.

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicants' cooperation are requested in correcting any errors of which applicants may become aware in the specification. Also, It is noted that the present specification does not contain line numbers. For ease of reference by both Examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Art Unit: 2171

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-11 are rejected under 35 U.S.C. 102(b) as to the examiner's best understanding being anticipated by Carter et al. (U.S. Patent No. 5,987,506).

6. As to claims 1-2, Carter et al. (Hereinafter referred as Carter) disclosed a stored data management subsystem [230, Fig. 6] as claimed by applicant comprising:

a) one or more hosts [e.g., 236a - 236b, Fig. 6];

b) a plurality of data storage elements [e.g., 232a - 232b, Fig. 6] functionally coupled to the one or more hosts [e.g., 236a - 236b, Fig. 6], wherein the plurality of data storage elements is organized using a plurality of layers of mapping tables, the plurality of layer of mapping tables provides unique identification of a location of data [col. 23, lines 12-27], such that individual data entries in a mapping table is variable and self-defining with respect to the amount of data managed [col. 24, lines 11-24; 340, Fig. 10; col. 26, lines 41- 65].

7. As to claims 3-4, Carter further disclosed that the layers of mapping tables are implemented individually and as variables [e.g., 342, 350, 360, 370, Fig. 10; col. 26, lines 41- 65].

Art Unit: 2171

8. As to claim 5, Carter further disclosed that information within the mapping table is by demand [col. 28, lines 6-20].

9. As to claim 6 Carter further disclosed that the range of data is managed and is correlated to an addressed mapping table within the plurality of mapping tables [col. 11, lines 51-56; Fig. 4 - Fig. 10].

10. As to claims 7-9, Carter further disclosed using indexing algorithm for the system correlation, wherein the correlation is a pointer system [col. 25, lines 17-34; lines 43-48; Fig(s) 9-10].

11. As to claim 10, Carter further disclosed that the correlation is a tree structure [e. g., 340, Fig. 11, Fig(s). 12A-B].

12. As to claim 11, Carter further disclosed that the range of data is managed independent of the layer of mapping tables being accessed within the plurality of layers of mapping tables via metadata pages [col. 29, lines 10-14]

Conclusion

Art Unit: 2171

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ledain et al. (U.S. Patent No. 5,996,054) which disclosed a efficient virtualized mapping space for log device data storage system.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Chen whose telephone number is (703) 308-1155. The examiner can normally be reached Monday through Friday from 7:30 A.M. to 4:30 P.M.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached at (703) 308-1436. The fax phone numbers for this group are:

(703) 746-7238 (After Final Communication);

(703) 746-7239 (Official Communications); and

(703) 746-7240 (For Status Inquiries, Draft Communication).

16. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Susan Chen

Dec. 6, 2002


SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100